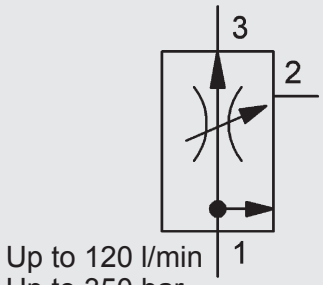


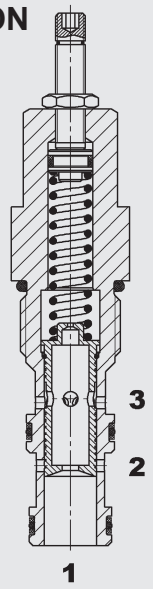
Up to 120 l/min
Up to 350 bar

3-Way Flow Regulator Pressure Compensated Priority Style, Direct-Acting UNF Cartridge - 350 bar

UNF

SRP12

FUNCTION



FEATURES

- For regulating the speed of loads independently of the pressure
- For limiting the max. speed of lifting gears (in compliance with accident prevention regulations)
- For limiting the flow rate for control oil circuits in the main circuit and offline
- For prioritized supply of consumers, such as steering and braking - the excess flow is diverted to port 2
- Hardened and ground internal valve components to ensure minimal wear and extended service life
- External surfaces zinc-nickel (ZnNi) plated and corrosion-proof

The priority style flow regulator SRP12 is a 3-way spool-type valve which maintains a constant flow rate by means of a control function. The flow rate is largely independent of the pressure and viscosity.

The valve has a fixed orifice with pressure compensator spool. The measuring orifice determines the setting range for the flow rate and can be adjusted over a small range. If oil is flowing from port 1 to 3, a pressure drop occurs at the measuring orifice. The pressure compensator moves into the regulating position which corresponds to the force equilibrium. This is created on the one side by the pressure drop acting on the control spool area and the spring force on the other side.

As the flow rate increases (higher pressure drop), the diameter of the control orifice is reduced until the forces are equal again. A constant flow rate is therefore achieved. In the reverse direction there is free flow through the valve.

A 3-way flow regulator is also called a priority flow regulator because the flow which is not required at port 3 can be utilized at port 2.

Important: if the required control pressure differential is not reached, the valve operates as a non-compensated needle valve.

SPECIFICATIONS*

Operating pressure:	max. 350 bar
Nominal flow:	max. 120 l/min
Flow ranges and accuracy:	10.6: 20 – 35 l/min 16.1: 30 – 55 l/min 22.5: 50 – 85 l/min 28.0: 55 – 105 l/min
Media operating temperature range:	min. -30 °C to max. +100 °C
Ambient temperature range:	min. -30 °C to max. +100 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 10 mm²/s to max. 420 mm²/s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
$MTTF_d$:	150 years
Installation:	No orientation restrictions
Materials:	Valve body: free-cutting steel Piston: hardened and ground steel Seals: NBR (standard) FKM (optional, temperature range -20 °C to +120 °C) Back-up rings PTFE
Cavity:	FC12-3
Weight:	0.38 kg

* see "Conditions and instructions for valves" in brochure 53.000

MODEL CODE

SRP12 – 01 – C – N – 10.6 H 9.0

Basic model
3-way flow regulator, UNF

Type
01 = standard

Body and ports*
C = cartridge only
AB6 = incl. alu housing G3/4" ports
SB6 = incl. steel housing G3/4 ports

Seals
N = NBR (standard)
V = FKM (optional)

Flow rate code

Flow rate code (GPM)	Nominal flow setting range (l/min)	Required control pressure differential (bar)
10.6	20 - 35	10 - 15
16.1	30 - 55	10 - 15
22.5	50 - 85	10 - 15
28.0	55 - 105	10 - 15

At a lower differential pressure, the valve operates as a non-compensated throttle valve

Type of adjustment
V = Allen head (hex. 5/32")
H = knob adjustment
Other adjustment types on request

Setting
9.0 = 9 Gpm (approx. 34 l/min)
No details = set to lowest value
Different settings are available as an option
(standard manufacturer's setting at Δp = 100 bar)

Standard models

Model code	Part No.
SRP12-01-C-N-10.6H	3507506
SRP12-01-C-N-16.1H	3827336
SRP12-01-C-N-22.5H	3827337
SRP12-01-C-N-28.0H	3827338

Other models on request

*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH123-SB6	3053908	Steel, zinc-plated	G 3/4	420 bar
FH123-AB6	3053872	Aluminium, anodized	G 3/4	210 bar

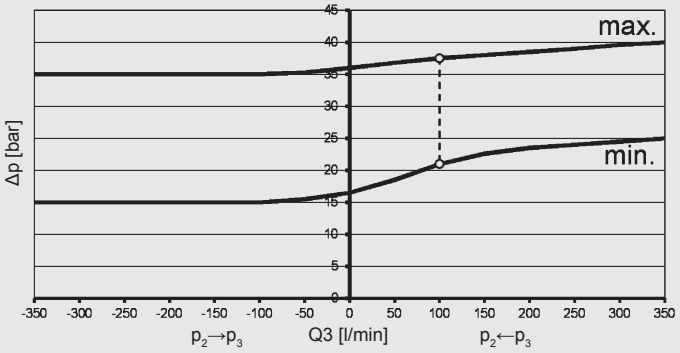
Seal kits

Code	Material	Part No.
FS123-N Seal Kit	NBR	3908935

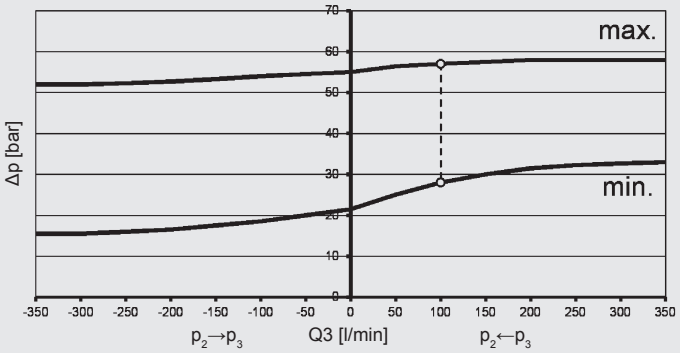
PERFORMANCE

Measured at ν = 46 mm²/s, T_{oil} = 40 °C

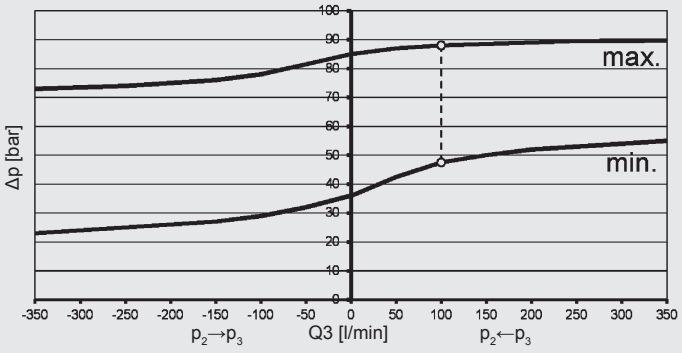
Example SRP12-01-...10.6
Q1 = 70 l/min



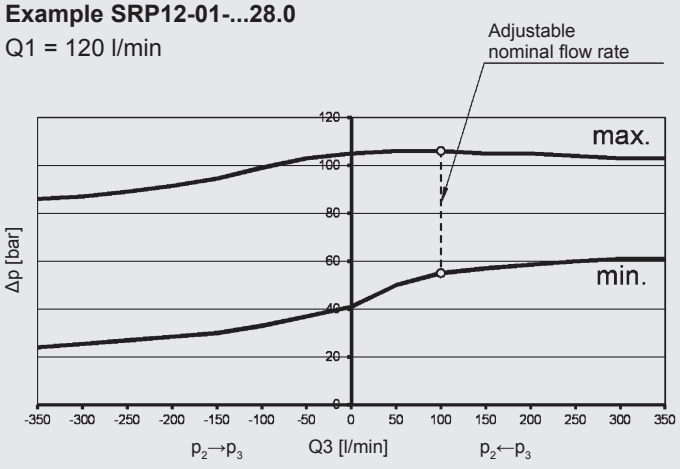
Example SRP12-01-...16.1
Q1 = 80 l/min



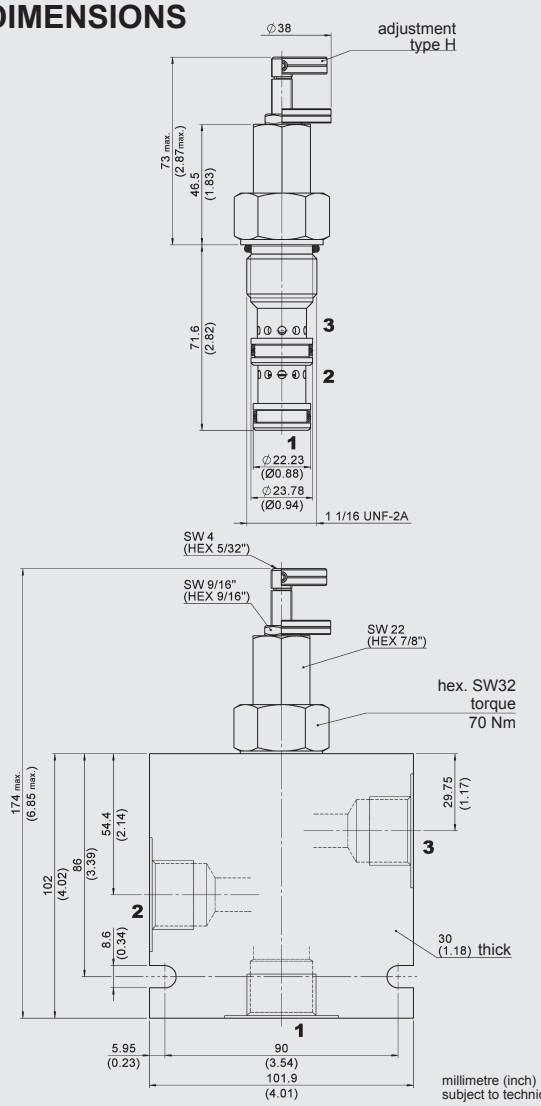
Example SRP12-01-...22.5
Q1 = 120 l/min



Example SRP12-01-...28.0
Q1 = 120 l/min



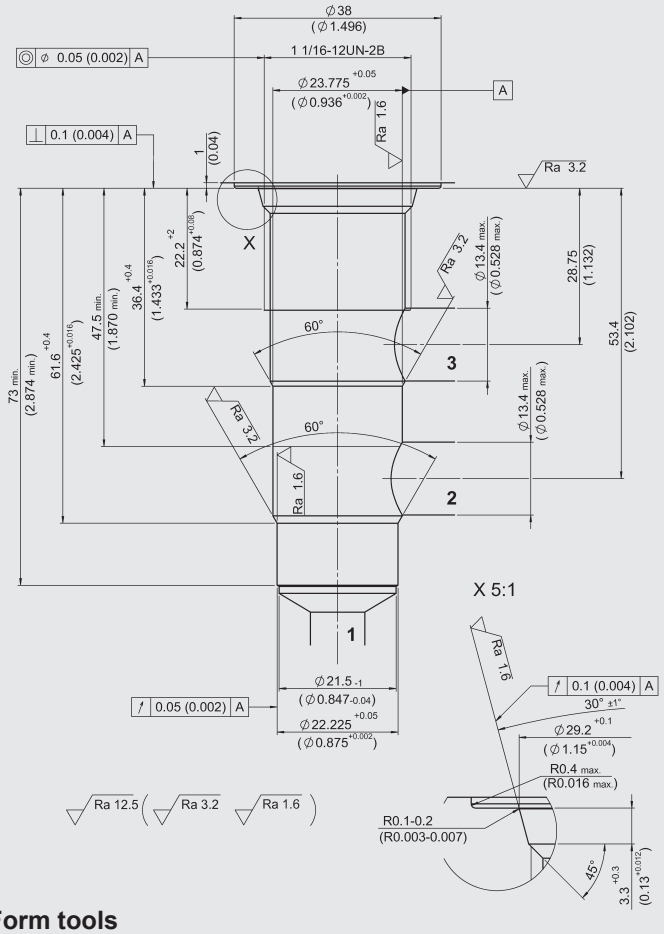
DIMENSIONS



millimetre (inch)
subject to technical modifications

CAVITY

FC12-03



Form tools

Tool	Part No.
On request	

millimetre (inch)
subject to technical modifications

Note

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.
Subject to technical modifications.

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